

# TROPICAL STORM GEORGIA

**BEST TRACK TC-12**

29SEP-01OCT 1983

MAX SFC WIND 55 KTS

MINIMUM SLP 987 MBS

TROPICAL STORM GEORGIA (12W)

The disturbance that was to become Tropical Storm Georgia originated in a broad area of convective activity located to the west of Luzon in the South China Sea. The southwesterly monsoon was well established in this area at the time, creating an area of high cyclonic vorticity at the intersection of this flow and the easterly trade-wind flow at the southern periphery of the subtropical ridge. Georgia was the first of five tropical cyclones to achieve tropical storm intensity in this active monsoon trough.

The weak surface circulation which became Georgia first came to the attention of JTWC forecasters when an upper-level anticyclone formed over it on the 28th of September. This development was accompanied by a rapid increase in the organization and intensity of the circulation. A TCFA was issued at 281459Z when the increase in organization of the system, apparent from satellite imagery, was confirmed by synoptic reports indicating that the MSLP had dropped below 1003 mb.

The circulation continued to intensify rapidly through the night. When a reconnaissance aircraft investigated the area on the following morning, it encountered a tropical storm with maximum sustained winds of 40 kt (21 m/s) and an MSLP of 996 mb. The first warning on Tropical Storm Georgia was issued on receipt of the data from the aircraft at 290000Z.

Georgia tracked westward from this point on with only a slight deviation northward in the vicinity of Hai-Nan island due to topographical effects. This track was accurately predicted by most objective techniques available to JTWC forecasters.

A strong subtropical ridge to the north of Georgia was expected to build westward during the period and keep the storm on a westward track. Daily height change analyses at 500 and 700 mb indicated that the ridge was indeed building as expected, causing Georgia to continue moving westward.

Georgia intensified to a maximum intensity of 55 kt (28 m/s) 12 hours prior to landfall on Hai-Nan island (Figure 3-12-1). The passage over Hai-Nan weakened Georgia slightly causing it to enter the Gulf of Tonkin with an intensity of 45 kt (23 m/s). However, Georgia reintensified while crossing the Gulf and made landfall on the coast of Vietnam with an intensity of 55 kt (28 m/s).

The timing and location of Georgia's arrival in Vietnam amplified the damages wrought by the storm. Georgia struck a low-lying agricultural area, Bac Bo, when the tide was rising and the rice crop was in the earing stage. Preliminary estimates of losses included 26 dead, 7,000 buildings damaged or destroyed and the loss of 247,000 acres (100,000 hectares) of rice. In surrounding areas, the arrival of Georgia proved beneficial. The rainfall associated with the storm, 13 to 14 inches (33 to 36 cm) in Thai Binh and Ha Nam provinces, signalled the end of an extensive drought. Rainfall associated with Georgia provided sufficient water to allow the cultivation of additional acreage for rice and filled lakes and reservoirs which could be used for irrigation of the winter and spring rice crops.

After making landfall, Georgia continued westward and dissipated rapidly in the mountains near the Laos/Vietnam border.

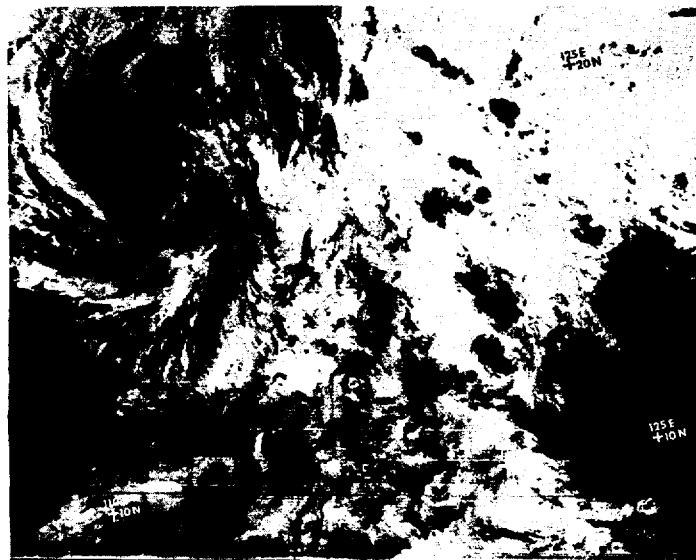


Figure 3-12-1. Tropical Storm Georgia at maximum intensity in the South China Sea (upper left). The disturbance in the lower right was the subject of a TCFA but did not develop (291026Z September DMSP infrared imagery).